

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An image forming apparatus for printing out data on the basis of given information, comprising:

a memory for storing information for use in the maintenance of said image forming apparatus;

a capacity determination unit for, when a use capacity of said memory has reached a predetermined value, notifying said memory of information representing that the use capacity has reached the predetermined value and instructing said memory to output the stored information; ~~and~~

a compressing unit for compressing the output information from said memory and outputting as coded information; and

a CPU for checking whether said apparatus is connected to a LAN and determining that the coded information is to be output to the LAN if said apparatus is connected to the LAN, for checking whether said apparatus is connected to a telephone line if said apparatus is not connected to the LAN and determining that the coded information is to be output to the telephone line if said apparatus is connected to the telephone line, and for determining that the coded information is to be printed out if said apparatus is not connected to the LAN or to the telephone line.

2. (Original) An apparatus according to claim 1, wherein said compressing unit converts the output information from said memory into coded information containing a character and number or bar code type digital information, and outputs the converted information.

3. (Original) An apparatus according to claim 2, wherein the coded information containing a character and number is expressed by a base-10 + n (n is an integer of not less than 1) number.

4. (Currently amended) A communication system for the maintenance of an image forming apparatus, which comprises said image forming apparatus having a printing unit for printing out data on the basis of given information, and a service provider's apparatus for receiving information for use in maintenance of said image forming apparatus, wherein

said image forming apparatus comprises:

a memory for storing information for use in the maintenance of said image forming apparatus;

a capacity determination unit for, when a use capacity of said memory has reached a predetermined value, notifying said memory of information representing that the use capacity has reached the predetermined value and instructing said memory to output the stored information; ~~and~~

a compressing unit for compressing the output information from said memory and outputting as coded information; and

a CPU for checking whether said apparatus is connected to a LAN and determining that the coded information is to be output to the LAN if said apparatus is connected to the LAN, for checking whether said apparatus is connected to a telephone line if said apparatus is not connected to the LAN and determining that the coded information is to be output to the telephone line if said apparatus is connected to the telephone line, and for determining that the coded information is to be printed out if said apparatus is not connected to the LAN or to the telephone line, and

said service provider's apparatus comprises information storage means for sequentially receiving and storing the coded information.

5. (Original) A system according to claim 4, wherein said compressing unit converts the output information from said memory into coded information containing a character and number or bar code type digital information, and outputs the converted information.

6. (Original) A system according to claim 5, wherein the coded information containing a character and number is expressed by a base-10 + n (n is an integer of not less than 1) number.

7. (Original) A system according to claim 6, wherein
said printing unit of said image forming apparatus prints the coded information output
from said compressing unit, and outputs the printed-out sheet, and

said service provider's apparatus further comprises:

converting means for reading the image information printed on the printed-out sheet,
converting the read image into coded information containing a character and number or bar
code type digital information, and outputting the converted information;

an expanding unit for expanding the compressed character information or the
compressed bar code type digital information; and

a display unit for displaying the expanded information on a screen or printing out the
expanded information.

8. (Original) A system according to claim 6, wherein
said image forming apparatus further comprises a first facsimile unit connected to a
communication line to transmit the coded information to said communication line, and

said service provider's apparatus further comprises:

a second facsimile unit connected to said communication line to receive and output
the coded information transmitted from said first facsimile unit;

an expanding unit for expanding and outputting the compressed information output
from said second facsimile unit; and

a display unit for displaying the expanded information on a screen or printing out the
expanded information.

9. (Original) A system according to claim 6, wherein
said image forming apparatus further comprises a first server connected to a
communication line to transmit the coded information to said communication line, and

said service provider's apparatus further comprises:

a second server connected to said communication line to receive and output the coded
information transmitted from said first server;

an expanding unit for expanding and outputting the compressed information output from said second server; and

a display unit for displaying the expanded information on a screen or printing out the expanded information.

10. (Original) A system according to claim 6, wherein
said printing unit of said image forming apparatus prints the coded information and
outputs a first printed-out sheet,
said image forming apparatus further comprises:
converting means for reading and converting information on a second printed-out
sheet into first character information; and
a setting change unit for changing a set value of said image forming apparatus on the
basis of the converted first character information, and
said service provider's apparatus further comprises:
converting means for reading and converting image information printed on the first
printed-out sheet into compressed second information, and outputting the compressed second
information;
an expanding unit for expanding the compressed second information;
a display unit for displaying the expanded second information on a screen or printing
out the expanded second information; and
a printing unit for outputting the second printed-out sheet containing information
which designates a change of a set value of said image forming apparatus.

11. (Original) A system according to claim 6, wherein
said image forming apparatus further comprises:
a first facsimile unit connected to a communication line to transmit the coded first
information to said communication line and receive second information transmitted from said
communication line; and
a setting change unit for changing a set value of said image forming apparatus on the
basis of the received second information, and
said service provider's apparatus further comprises:

a second facsimile unit connected to said communication line to receive and output the coded first information transmitted from said first facsimile unit, and transmit the second information designating a change of a set value of said image forming apparatus;

an expanding unit for expanding and outputting the coded compressed first information output from said second facsimile unit; and

a display unit for displaying the expanded first information on a screen or printing out the expanded first information.

12. (Original) A system according to claim 6, wherein said image forming apparatus further comprises:

a first server connected to a communication line to transmit the coded first information to said communication line, and receive the second information transmitted from said communication line; and

a setting change unit for changing a set value of said image forming apparatus on the basis of the received second information, and

said service provider's apparatus further comprises:

a second server connected to said communication line to receive and output the coded first information transmitted from said first server, and transmit the second information designating a change of a set value of said image forming apparatus;

an expanding unit for expanding and outputting the coded compressed first information output from said second server; and

a display unit for displaying the expanded character information on a screen or printing out the expanded character information.

13. (Currently amended) A maintenance service method of an image forming apparatus which prints out data on the basis of given information, comprising the steps of:

storing information for use in maintenance of said image forming apparatus into a memory;

causing said memory to output the stored information when a use capacity of said memory has reached a predetermined value; and

compressing the output information from said memory and outputting the compressed information as coded information; and

checking whether said apparatus is connected to a LAN and determining that the coded information is to be output to the LAN if said apparatus is connected to the LAN, for checking whether said apparatus is connected to a telephone line if said apparatus is not connected to the LAN and determining that the coded information is to be output to the telephone line if said apparatus is connected to the telephone line, and for determining that the coded information is to be printed out if said apparatus is not connected to the LAN or to the telephone line.

14. (Original) A method according to claim 13, wherein the step of compressing the image comprises converting the output information from said memory into coded information containing a character and number or bar code type digital information.

15. (Original) A method according to claim 14, wherein the step of compressing the information and outputting as coded information comprises using a base-10 + n (n is an integer of not less than 1) number.

16. (Currently amended) A method by which a service provider provides a maintenance service to a user's image forming apparatus having a printing unit for printing out data on the basis of given information, comprising the steps of:

storing information for use in maintenance of said image forming apparatus into a memory;

causing said memory to output the stored information when the use capacity of said memory has reached a predetermined value; and

compressing the output information from said memory and outputting the compressed information as coded information, and

checking whether said apparatus is connected to a LAN and determining that the coded information is to be output to the LAN if said apparatus is connected to the LAN, for checking whether said apparatus is connected to a telephone line if said apparatus is not connected to the LAN and determining that the coded information is to be output to the

telephone line if said apparatus is connected to the telephone line, and for determining that the coded information is to be printed out if said apparatus is not connected to the LAN or to the telephone line,

on the user side; and
sequentially storing the coded information,
on the service provider side.

17. (Original) A method according to claim 16, further comprising the steps of:

printing the compressed coded information as image information by using said printing unit; and

reading the image information printed on the printed-out sheet, converting the read information into compressed character information or compressed bar code type digital information, and outputting the converted information,

on the user side; and

expanding the compressed character information or the compressed bar code type digital information; and

displaying the expanded information on a screen or printing out the expanded information,

on the service provider side.

18. (Original) A method according to claim 16, further comprising the steps of:

transmitting the coded information to a communication line by using a first facsimile unit, which is connected to said communication line, of said image forming apparatus,

on the user side; and

receiving the coded information transmitted from said first facsimile unit by using a second facsimile unit connected to said communication line;

expanding the compressed information received by said second facsimile unit; and

displaying the expanded information on a screen or printing out the expanded information,

on the service provider side.

19. (Original) A method according to claim 16, further comprising the steps of:

transmitting the coded information to a communication line by using a first server connected to said communication line,
on the user side; and
receiving the coded information transmitted from said first server by using a second server connected to said communication line;
expanding the compressed information received by said second server; and
displaying the expanded information on a screen or printing out the expanded information,
on the service provider side.

20. (Original) A method according to claim 16, further comprising the steps of:

printing the coded information and outputting a first printed-out sheet by using said printing unit;
reading and converting information on the first printed-out sheet into first information, and outputting the first information; and
changing a set value of said image forming apparatus on the basis of the first information,
on the user side; and
reading image information printed on the first printed-out sheet and converting the image information into compressed second information;
expanding the compressed second information;
displaying the expanded second information on a screen or printing out the expanded second information; and
outputting a second printed-out sheet containing information which designates a change of a set value of said image forming apparatus,
on the service provider side.

21. (Original) A method according to claim 16, further comprising the steps of:

transmitting the coded first information to a communication line, and receiving second information transmitted from said communication line, by using a first facsimile unit connected to said communication line; and

changing a set value of said image forming apparatus on the basis of the received second information,

on the user side; and

receiving the coded first information transmitted from said first facsimile unit, and transmitting the second information which designates a change of a set value of said image forming apparatus, by using a second facsimile unit connected to said communication line;

expanding the coded compressed first information received by said second facsimile unit; and

displaying the expanded first information on a screen or printing out the expanded first information,

on the service provider side.

22. (Original) A system according to claim 16, further comprising the steps of:

transmitting the coded first information to a communication line, and receiving second information transmitted from said communication line, by using a first server connected to said communication line; and

changing a set value of said image forming apparatus on the basis of the received second information,

on the user side; and

receiving the coded first information transmitted from said first server, and transmitting the second information which designates a change of a set value of said image forming apparatus, by using a second server connected to said communication line;

expanding the coded compressed first information received by said second server; and

displaying the expanded first information on a screen or printing out the expanded first information,
on the service provider side.

23.-25. (Canceled)